- 15. (Amended) A knitted fabric of claim 1 [to 13], comprising yarns with metrical number equal or larger than 7.5.
- 16. (Amended) A knitted fabric of claim 1 [to 13], comprising yarns with metrical number equal or larger than 10.
- 17. (Amended) Use of a fabric according to [any one of the preceding claims] claim 1 for covering moulds and tempering or press-on rings which are utilised in the process of forming glass plates, or for covering the means of transport by which glass plates are moved during the forming process.

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DCT/EDOG/00717

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KNITTED FABRIC OF STEEL FIBRES WITH INCREASED NUMBER OF STITCHES

Field of the invention.

The invention relates to a knitted fabric comprising fibres, at least part of these fibres being metal fibres and the use of such fabric as separation cloth for moulds in glass bending processes.

Background of the invention.

Such knitted fabrics comprising metal fibres are described in the PCTpatent applications WO97/04152, WO94/01372 and WO94/01373 and are utilised in various fields of application.

The use of a textile fabric as separation cloth between mould and glass, to form side-lites and back-lites for automotive business is known. During this contact, temperatures of 650 to 700°C are used. It is of great importance that no marks are left on the glass surface after the contact of the glass and the textile fabric.

The use of textile fabrics out of 100% glass fibres is known. The disadvantage of these glass fibre cloths is that it doesn't resist the mechanical action during the glass shaping process. Also the use of textile fabrics, partially or fully consisting out of metal fibres is known. Using these fabrics as mould coverings, the mechanical action of the bending process is withstand better, but there is still the risk of marking the glass, by transferring the woven or knitted pattern into the glass surface which has contacted the textile fabric.

Further, it is known that the use of knitted structures is more suitable to cover moulds, since knitted surfaces can be draped better on moulds and less or no folds will be created when bending the knitted fabric, especially on three-dimensionally shaped surfaces or moulds.

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The risk of having marks, caused by use of textile fabrics as the separation cloth for moulds in glass bending processes, is influenced by several parameters, such as glass temperature and pressure used to bend the glass. Since for example the automotive industry requires more complex glass surfaces, this is glasses which show a deeper bend, the glass has to be heated to a higher temperature and the pressure to bend the glass, is increased as well. These two adjustments to the production parameters of the bending process, makes the glass more sensitive to markings since higher temperature makes the glass softer, and creates a more obvious transfer of the textile structure, either woven or knitted, on the glass surface because of the higher pressure.

Another parameter that influences the risk of marking, is the wear of the textile fabric, used as a separation cloth between moulds and glass, due to the repetitive contacts with glass sheets, and the temperature. This temperature makes the fibres become more sensitive to breaking forces, and the mechanical action of the glass sheets against the fabric makes the fabric wear out little by little. Since the fibres which are standing out on the yarn surface, will suffer most on this mechanical action, and so will disappear after several contacts with glass, the stitches out of which the knitted fabric is made or the weaving pattern, used to provide the woven fabric, will be transferred more obviously to the glass surface.

Separation cloths should preferably meet next requirements:

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The cloth should resist the bending temperature. Typically, these
temperatures raise up to 700°C when the bending takes place in the
heated part of the furnace. When the glass bending takes place out of
the furnace, this temperature will be less.

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- The cloth should be able to follow the mould shape as close as possible.

 The separation material should about apparation material should about apparation.
- The separation material should show enough air permeability. It is taken as a limit that separation cloths should at least have an air